

PATENT APPLICATION: US/09/718,725

Input Set : C:\PAOLA\09718725.txt

Output Set: C:\CRF3\05312001\I718725.raw

Page 1 of

و 3 1 20 الال

TECH CENTER 160

DATE: 05/31/2001

TIME: 11:26:52

ENTERED

SEQUENCE LISTING

```
(1) GENERAL INFORMATION:
                                                                 SFP 0 5 2001
        (i) APPLICANT: Boyle, William J.
 7
                        Lacey, David L.
                                                             TECH CENTER 1600/2900
                        Calzone, Frank J.
 9
                        Chang, Ming-Shi
11
```

(ii) TITLE OF INVENTION: OSTEOPROTEGERIN 13 (iii) NUMBER OF SEQUENCES: 168

RAW SEQUENCE LISTING

15 (iv) CORRESPONDENCE ADDRESS: 16 (A) ADDRESSEE: Amgen Inc. 17

(B) STREET: 1840 Dehavilland Drive

18 (C) CITY: Thousand Oaks 19 (D) STATE: California 20

(E) COUNTRY: United States 21 (F) ZIP: 91320 23 (v) COMPUTER READABLE FORM:

24

25

26

27

29

32

34 35

36

38

39

40

46

47

48

49

51

63

64

65

73

C--> 30

C--> 31

(A) MEDIUM TYPE: Floppy disk (B) COMPUTER: IBM PC compatible

(C) OPERATING SYSTEM: PC-DOS/MS-DOS

(D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:

(A) APPLICATION NUMBER: US/09/718,725

(B) FILING DATE: 22-Nov-2000

(C) CLASSIFICATION: (vii) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: 09/132,985

(B) FILING DATE:

(viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Winter, Robert B.

(C) REFERENCE/DOCKET NUMBER: A-378-CIP

43 (2) INFORMATION FOR SEQ ID NO: 1:

45 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 36 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

58 AAAGGAAGGA AAAAAGCGGC CGCTACANNN NNNNNT

(2) INFORMATION FOR SEQ ID NO: 2: 60 62

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 16 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

66 (D) TOPOLOGY: linear 68

(ii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

36

RAW SEQUENCE LISTING

DATE: 05/31/2001 PATENT APPLICATION: US/09/718,725 TIME: 11:26:52

Input Set : C:\PAOLA\09718725.txt

Output Set: C:\CRF3\05312001\I718725.raw

```
75 TCGACCCACG CGTCCG
                                                                            16
77 (2) INFORMATION FOR SEQ ID NO: 3:
                                                               RECEIVED
        (i) SEQUENCE CHARACTERISTICS:
             (A) LENGTH: 12 base pairs
80
81
              (B) TYPE: nucleic acid
                                                                  SEP 0 5 2001
82
              (C) STRANDEDNESS: single
83
             (D) TOPOLOGY: linear
                                                             TECH CENTER 1600/2900
85
       (ii) MOLECULE TYPE: cDNA
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
92 GGGTGCGCAG GC
                                                                            12
94 (2) INFORMATION FOR SEQ ID NO: 4:
96
        (i) SEQUENCE CHARACTERISTICS:
97
             (A) LENGTH: 18 base pairs
98
             (B) TYPE: nucleic acid
99
             (C) STRANDEDNESS: single
              (D) TOPOLOGY: linear
100
102
        (ii) MOLECULE TYPE: cDNA
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
107
109 TGTAAAACGA CGGCCAGT
                                                                             18
111 (2) INFORMATION FOR SEQ ID NO: 5:
113
        (i) SEQUENCE CHARACTERISTICS:
              (A) LENGTH: 18 base pairs
115
              (B) TYPE: nucleic acid
116
              (C) STRANDEDNESS: single
117
              (D) TOPOLOGY: linear
119
        (ii) MOLECULE TYPE: cDNA
124
        (xi) SEQUENCE DESCRIPTION: SEO ID NO: 5:
126 CAGGAAACAG CTATGACC
                                                                             18
128 (2) INFORMATION FOR SEQ ID NO: 6:
130
        (i) SEQUENCE CHARACTERISTICS:
131
              (A) LENGTH: 20 base pairs
132
              (B) TYPE: nucleic acid
133
              (C) STRANDEDNESS: single
134
              (D) TOPOLOGY: linear
136
        (ii) MOLECULE TYPE: cDNA
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
143 CAATTAACCC TCACTAAAGG
                                                                             20
145 (2) INFORMATION FOR SEQ ID NO: 7:
147
        (i) SEQUENCE CHARACTERISTICS:
148
              (A) LENGTH: 23 base pairs
149
              (B) TYPE: nucleic acid
150
              (C) STRANDEDNESS: single
151
              (D) TOPOLOGY: linear
153
        (ii) MOLECULE TYPE: cDNA
158
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
160 GCATTATGAC CCAGAAACCG GAC
                                                                             23
162 (2) INFORMATION FOR SEQ ID NO: 8:
164
       (i) SEQUENCE CHARACTERISTICS:
165
              (A) LENGTH: 23 base pairs
```

RAW SEQUENCE LISTING DATE: 05/31/2001 PATENT APPLICATION: US/09/718,725 TIME: 11:26:52

Input Set : C:\PAOLA\09718725.txt
Output Set: C:\CRF3\05312001\1718725.raw

```
(B) TYPE: nucleic acid
166
167
              (C) STRANDEDNESS: single
168
              (D) TOPOLOGY: linear
170
        (ii) MOLECULE TYPE: cDNA
175
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
177 AGGTAGCGCC CTTCCTCACA TTC
                                                                             23
179 (2) INFORMATION FOR SEQ ID NO: 9:
        (i) SEQUENCE CHARACTERISTICS:
182
              (A) LENGTH: 30 base pairs
183
              (B) TYPE: nucleic acid
184
              (C) STRANDEDNESS: single
185
              (D) TOPOLOGY: linear
187
        (ii) MOLECULE TYPE: cDNA
192
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
194 GACTAGTCCC ACAATGAACA AGTGGCTGTG
                                                                             30
196 (2) INFORMATION FOR SEQ ID NO: 10:
        (i) SEQUENCE CHARACTERISTICS:
199
              (A) LENGTH: 45 base pairs
200
              (B) TYPE: nucleic acid
201
              (C) STRANDEDNESS: single
202
              (D) TOPOLOGY: linear
204
        (ii) MOLECULE TYPE: cDNA
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
211 ATAAGAATGC GGCCGCTAAA CTATGAAACA GCCCAGTGAC CATTC
                                                                            45
213 (2) INFORMATION FOR SEQ ID NO: 11:
        (i) SEQUENCE CHARACTERISTICS:
215
216
             (A) LENGTH: 21 base pairs
217
              (B) TYPE: nucleic acid
218
              (C) STRANDEDNESS: single
219
              (D) TOPOLOGY: linear
221
        (ii) MOLECULE TYPE: cDNA
226
        (xi) SEQUENCE DESCRIPTION: SEO ID NO: 11:
228 GCCTCTAGAA AGAGCTGGGA C
                                                                            21
230 (2) INFORMATION FOR SEQ ID NO: 12:
232 (i) SEQUENCE CHARACTERISTICS:
             (A) LENGTH: 21 base pairs
233
234
              (B) TYPE: nucleic acid
235
              (C) STRANDEDNESS: single
236
              (D) TOPOLOGY: linear
        (ii) MOLECULE TYPE: cDNA
238
243
        (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
245 CGCCGTGTTC CATTTATGAG C
                                                                            21
247 (2) INFORMATION FOR SEQ ID NO: 13:
249
         (i) SEQUENCE CHARACTERISTICS:
250
              (A) LENGTH: 24 base pairs
251
              (B) TYPE: nucleic acid
252
              (C) STRANDEDNESS: single
253
              (D) TOPOLOGY: linear
255
    (ii) MOLECULE TYPE: cDNA
```

DATE: 05/31/2001

TIME: 11:26:52

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/718,725

Input Set : C:\PAOLA\09718725.txt

Output Set: C:\CRF3\05312001\I718725.raw

260 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13: 262 ATCAAAGGCA GGGCATACTT CCTG 264 (2) INFORMATION FOR SEQ ID NO: 14: 266 (i) SEQUENCE CHARACTERISTICS: 267 (A) LENGTH: 24 base pairs 268 (B) TYPE: nucleic acid 269 (C) STRANDEDNESS: single 270 (D) TOPOLOGY: linear 272 (ii) MOLECULE TYPE: cDNA	24
277 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:	0.4
279 GTTGCACTCC TGTTTCACGG TCTG	2 4
281 (2) INFORMATION FOR SEQ ID NO: 15:	
283 (i) SEQUENCE CHARACTERISTICS:	
284 (A) LENGTH: 24 base pairs	
285 (B) TYPE: nucleic acid	
286 (C) STRANDEDNESS: single	
287 (D) TOPOLOGY: linear	
289 (ii) MOLECULE TYPE: cDNA 294 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:	
294 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15: 296 CAAGACACCT TGAAGGGCCT GATG	24
298 (2) INFORMATION FOR SEQ ID NO: 16:	
300 (i) SEQUENCE CHARACTERISTICS:	
301 (A) LENGTH: 24 base pairs	
302 (B) TYPE: nucleic acid	
303 (C) STRANDEDNESS: single	
304 (D) TOPOLOGY: linear	
306 (ii) MOLECULE TYPE: cDNA	
311 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:	2.4
313 TAACTTTTAC AGAAGAGCAT CAGC	24
315 (2) INFORMATION FOR SEQ ID NO: 17:	
317 (i) SEQUENCE CHARACTERISTICS:	
318 (A) LENGTH: 33 base pairs	
319 (B) TYPE: nucleic acid	
320 (C) STRANDEDNESS: single 321 (D) TOPOLOGY: linear	
323 (ii) MOLECULE TYPE: cDNA 328 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:	
330 AGCGCGGCCG CATGAACAAG TGGCTGTGCT GCG	33
332 (2) INFORMATION FOR SEQ ID NO: 18:	
334 (i) SEQUENCE CHARACTERISTICS:	
335 (A) LENGTH: 31 base pairs	
336 (B) TYPE: nucleic acid	
337 (C) STRANDEDNESS: single	
338 (D) TOPOLOGY: linear	
340 (ii) MOLECULE TYPE: cDNA	
345 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:	31
347 AGCTCTAGAG AAACAGCCCA GTGACCATTC C	31
349 (2) INFORMATION FOR SEQ ID NO: 19: 351 (i) SEQUENCE CHARACTERISTICS:	
351 (i) SEQUENCE CHARACTERISTICS:	

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/718,725

DATE: 05/31/2001 TIME: 11:26:52

Input Set : C:\PAOLA\09718725.txt

Output Set: C:\CRF3\05312001\I718725.raw

352 (A) LENGTH: 24 base pairs	
353 (B) TYPE: nucleic acid	
354 (C) STRANDEDNESS: single	
355 (D) TOPOLOGY: linear	
357 (ii) MOLECULE TYPE: cDNA	
362 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:	19:
364 GTGAAGCTGT GCAAGAACCT GATG	24
366 (2) INFORMATION FOR SEQ ID NO: 20:	
368 (i) SEQUENCE CHARACTERISTICS:	
369 (A) LENGTH: 24 base pairs	
370 (B) TYPE: nucleic acid	
371 (C) STRANDEDNESS: single	
372 (D) TOPOLOGY: linear	
374 (ii) MOLECULE TYPE: cDNA	
379 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:	20:
381 ATCAAAGGCA GGGCATACTT CCTG	24
383 (2) INFORMATION FOR SEQ ID NO: 21:	
385 (i) SEQUENCE CHARACTERISTICS:	
386 (A) LENGTH: 24 base pairs	
387 (B) TYPE: nucleic acid	
388 (C) STRANDEDNESS: single	
389 (D) TOPOLOGY: linear	
391 (ii) MOLECULE TYPE: cDNA	
396 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:	21:
398 CAGATCCTGA AGCTGCTCAG TTTG	24
400 (2) INFORMATION FOR SEQ ID NO: 22:	
402 (i) SEQUENCE CHARACTERISTICS:	
403 (A) LENGTH: 33 base pairs	
404 (B) TYPE: nucleic acid	
405 (C) STRANDEDNESS: single	
406 (D) TOPOLOGY: linear	
408 (ii) MOLECULE TYPE: cDNA	
413 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:	22:
415 AGCGCGGCCG CGGGGACCAC AATGAACAAG TTG	33
417 (2) INFORMATION FOR SEQ ID NO: 23:	
419 (i) SEQUENCE CHARACTERISTICS:	
420 (A) LENGTH: 33 base pairs	
421 (B) TYPE: nucleic acid	
422 (C) STRANDEDNESS: single	
423 (D) TOPOLOGY: linear	
425 (ii) MOLECULE TYPE: cDNA	
430 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:	23:
430 (XI) SEQUENCE DESCRIPTION. SEQ 15 NO. 432 AGCTCTAGAA TTGTGAGGAA ACAGCTCAAT GGC	33
434 (2) INFORMATION FOR SEQ ID NO: 24:	
434 (2) INFORMATION FOR SEQ 15 NO. 24. 436 (i) SEQUENCE CHARACTERISTICS:	
437 (A) LENGTH: 39 base pairs	
438 (B) TYPE: nucleic acid	
439 (C) STRANDEDNESS: single	
439 (C) STRANDEDNESS. SINGLE	

(D) TOPOLOGY: linear

440

VERIFICATION SUMMARY

DATE: 05/31/2001 PATENT APPLICATION: US/09/718,725 TIME: 11:26:53

Input Set : C:\PAOLA\09718725.txt

Output Set: C:\CRF3\05312001\I718725.raw

L:30 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:] L:31 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]